AquaTrac System User's Manual

Issued by the AquaTrac Systems, Inc. Project Team

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Congratulations, Coach! You are now the proud owner of an AquaTrac System. AquaTrac Systems, Inc. has designed the AquaTrac coaching system to serve as the ultimate swim team coaching tool. With your new system, you will be able to organize practices for your team, generate statistical reports about swimmers, and schedule your long-term workout goals. You will also be able to obtain important statistics about your swimmers to help you to develop better strategies to beat out the competition.

As you know, competitive swim training requires monitoring performance so that it can be analyzed and improved. Tracking data helps to find strengths and weaknesses within a swimmer as an individual. If you can identify a swimmer's weaknesses you can work to improve these areas and make the swimmer faster. On the other hand, if you know the swimmer's strengths, you will be able to use them to the swimmer's benefit, helping that swimmer win races. Knowledge about your team can provide you with useful insight into devising competitive strategies against the team's opponents. You want to obtain all of the knowledge about your team as you can. The AquaTrac System is the perfect tool for you.

The AquaTrac System monitors your swimmer's times, distance, and heart rate while they work out so you can devote your attention to improving swimmers' techniques and motivating them to swim correctly. From all of us at AquaTrac Systems, Inc. we thank you for doing business with us, and congratulate you on a wise purchase. Soon

your team will be making wake of the competition and your coaching abilities will be

better than ever before. Have fun and enjoy your new AquaTrac Coaching System!

System Description
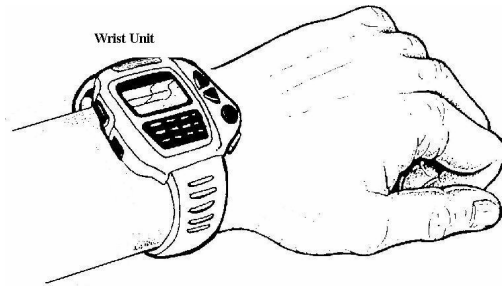
Wrist Unit

The Wrist Device – Worn by Your Swimmers

The AquaTrac system relies on three devices that communicate with each other to collect data about your swimmers. The first unit is a wrist device. Wrist devices are worn by all of your swimmers during every workout. The wrist devices collect information about your swimmers' workout according to when your swimmers push off of an AquaTrac touch pad. The touch pads will be mounted on the wall underwater at the starting end of the pool. Every time a swimmer pushes off of a touch pad, a signal is sent to the wrist device indicating that a lap has been completed. The wrist device monitors your swimmers' heart rates as they swim, as well as obtaining times for every lap. The wrist monitor stores all of this information so that it can send it to your coaching station later in the day, after practice.

The wrist unit also serves as a timepiece. Your swimmers can monitor the time as they swim. More importantly, all the information collected by the wrist device can be displayed on the screen. If your swimmers have a break during their workout they can manipulate the buttons on the devices to see their own statistics for the last set.

After each practice, you will need to place wrist devices close to your coaching station. The AquaTrac wrist units do not need to plug into your computer, they simply have to be within 2 feet of the coaching station. Once a connection has been established,

all of your swimmers' information will be loaded from the wrist devices onto your

coaching station.
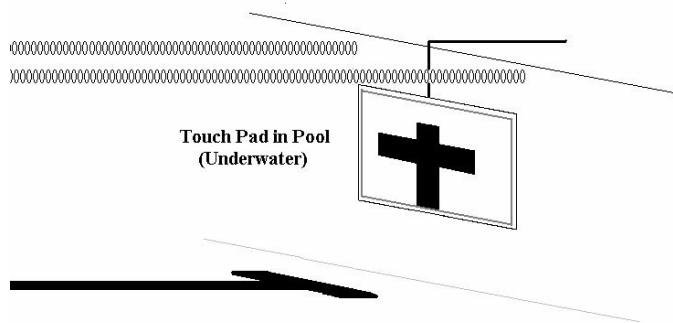
The Lane Unit Touch Pads

  The AquaTrac Lane units are touch pads as well as radio transmitters. They are

placed at the starting end of each lane in your swimming pool. The touch pads will be

placed such that every time your swimmers push off of the wall of the starting end of the

pool, he or she will push off of a touch pad. When a swimmer pushes off of the wall, a

radio signal is sent out to communicate with that swimmer's wrist device. The radio

signal has a short range underwater. This ensures that only the wrist device on the

swimmer who touched the pad will receive the signal. When the wrist device receives

the radio signal it stores the swimmer's time for the last lap and the heart rate measured

during the lap.

The Coaching Station – Main Computer

The coaching station is your information collection tool and planning center. You will be loading information to and from the wrist devices based on commands you put into the main coaching station. Before practices, you can use AquaTrac software to design a workout routine for that day. Once you have completed the routine plan, you can load the information onto the wrist devices by placing the devices close to the computer and following simple directions provided by the AquaTrac program. After practices, you will load information from the wrist devices onto the main computer by placing the wrist devices close to the computer and issuing more commands to your coaching station.

With the information that has been collected from the wrist devices, you will be able to display graphs about your swimmers' performance. You can run reports about their times and use heart rate statistics to generalize about the amount of effort they are putting forth. From the information provided in the AquaTrac software, you will be able to create more competitive strategies and help improve the times of your swimmers.

Operation Instructions

Installation

Installing the Radio Frequency Receiver Device into your Coaching Station.

The AquaTrac System uses radio technology to exchange wireless data communication between the wrist device and the computer. When you connect the IrDA adaptor into your computer, you automatically convert your computer into a communication stations for the swimmer wrist devices. Install the IrDA adaptor by doing the following:

1. Connect the IrDA adaptor (Figure 8) to an available USB port of your computer. Figure 9 shows the IrDA adaptor being connected to a computer.

2. Once you have inserted the IrDA into the USB port, hold an available wrist unit within 5 feet of the device. The LED on the IrDA will begin to flash every 3 seconds, confirming that a wrist device and your computer are communicating properly.

IrDA adaptor   Adapter Connected to Computer

Putting Your Lane Units in the Swimming Pool

1. The AquaTrac Lane Unit Touch Pads are designed to fit snuggly over the gutters of your swimming pool. To install the devices, simply hang each Touch Pad over the gutter at the starting end of your swimming pool. The Touch Pads are designed to stay in place, relying on their own gravity to hold them down.

2. Each Touch Pad is equipped with a long, insulated power cable. When a Touch Pad has been placed in the water on the wall, find an outlet located outside the pool area. Run the cable along the floor to the outlet and cover the cable with floor mats, so people walking on the pool deck will not trip on the cables. Once all of the cables are hidden you can plug the cable into the power outlet or surge protector.

Installing AquaTrac Software onto your computer

If you ordered a computer/coaching station as part of your AquaTrac System package, then you already have the AquaTrac coaching software installed on your machine. You can skip this section.

If you are converting an existing computer to your coaching station, then follow these steps to installing the AquaTrac Software onto your machine.

System Requirements

Before you install the AquaTrac software on your computer, check your computer user's manual to be sure it meets the following requirements:

- Microsoft Windows 2000 or Microsoft Windows 2003 XP Server Edition

- Intel Pentium III with 500MHz or higher

- Minimum of 512MB of RAM

- Hard drive with at least 2 GB of free space

- VGA or other compatible display

Installing the Software

The software programs are distributed on a single CD. There are 3 software programs to be installed. These include the Database Server, Analysis and Reporting Kit, and Device Drivers for interfacing and retrieving data from the swimmer wrist devices. We

recommend that all 3 software programs be installed in the same Program Files folder.

This will make administration and maintenance of the Database Server more convenient.

Depending on the components in your computer system, the entire installation process

will take approximately 20 to 30 minutes. Insert the installation CD into the appropriate

drive. Run the setup.exe program to launch the installation application. An installation

menu as shown on Figure 1 will appear.

Figure 1

Installing the Database Server

1.	Click on the button labeled Install Database Server. A form as indicated on

	Figure 2 will appear. Specify the location to install the database server by

	selecting the appropriate drive and directory. The default installation path is

	C:\Program Files\AquaTrac\Database Server\. Click on the OK button to

	continue.

2.	On the next form, enter a password for the *admin* user, which is used to access the

	database and administer the analysis and reporting tools. Click on the OK button

to continue. The installation of the database server will begin as indicated by the progress meter on Figure 3.

3.   A dialog box will appear confirming the successful installation of the database server. The computer must be rebooted to before continuing to the next installation. Click on the Reboot button to reboot the system immediately.
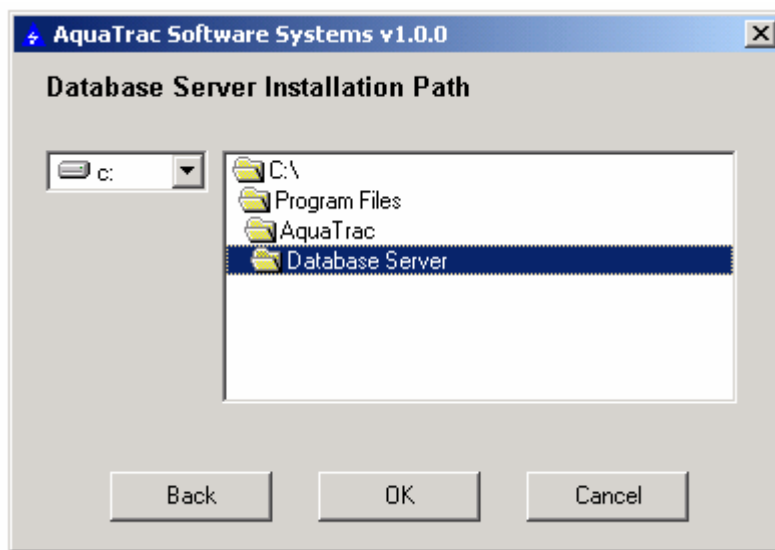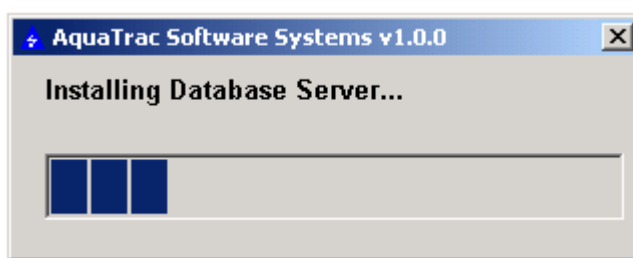
Figure 2

Figure 3

Installing Analysis and Reporting Tools

1.   From the installation menu, click on the button labeled Install Analysis and Reporting Tools. A window like the one shown on Figure 4 will appear. Indicate

the location to install the by selecting the appropriate drive and directory. The

default installation path is C:\Program Files\AquaTrac\Analysis and Reporting

Tools\. Click on the OK button to continue.

1. On the next dialog box, enter the password for the *admin* user created from

   database server installation. Click on the OK button to continue

2. The installation of the analysis and reporting tools will begin as indicated by the

   progress meter on Figure 5.

3. A dialog box will appear confirming the successful installation of the analysis and

   reporting tools. It is not necessary to reboot the computer system. Click on the

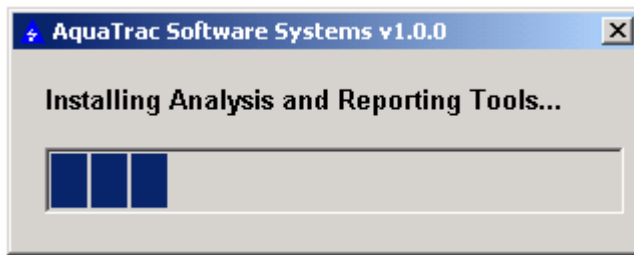   OK button to return to the installation menu.

Figure 4
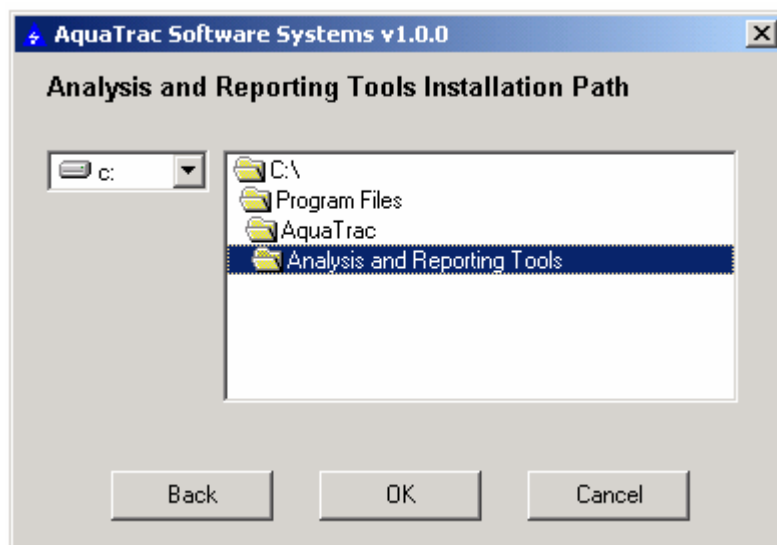
Figure 5

1.2.3   Installing Device Drivers

The AquaTrac uses wireless communication via radio frequency waves to communicate

with the wrist device. To retrieve, decode, and process performance data from the wrist

device, the AquaTrac uses several device drivers.

1.   From the installation menu, click on the button labeled "Install Device   Drivers".

         A form as indicated on Figure 6 will appear. Specify the location to install the

         database server by selecting the appropriate drive and directory. The default

         installation path is

         C:\Program Files\AquaTrac\Device Drivers\. Click on the OK button to continue.

         The installation of the device drivers will begin as indicated by the progress meter

         on Figure 7.

2.   A dialog box will appear confirming the successful installation of the device

         drivers. The computer must be rebooted. Click on the Reboot button to reboot
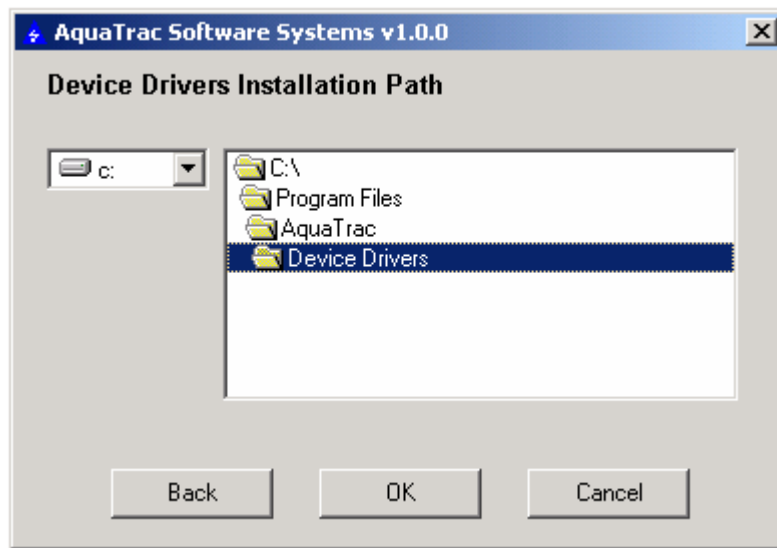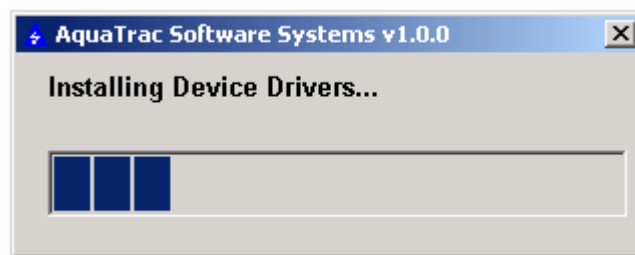
         the system immediately.

Figure 6

Figure 7

Signal/Light	Turns the beeper on or off.	
	Turns the backlight on.	
Reset	Resets the heart rate monitor.	
Stop	Return-Stops measuring the heart rate. Exits the displayed mode and returns to the previous mode level. Returns to the Time of Day display from any mode by pressing and holding the stop button.	
OK	Accept-Starts measuring the heart rate. Enters the displayed mode shown on the lower level (start). Locks in your selection (ok). Records lap information (lap). The Help text (start, ok, or lap) that appears on the display above the button indicates its use.	

USEFUL TIPS

- Briefly pressing a button (approximately 1 second) will do different things than pressing and holding the button for a longer period of time (approximately 2 to 5 seconds). If you press the button for a longer period of time, you can use shortcuts.

- The buttons are slightly stiffer than those of an ordinary watch to prevent them from being pressed accidentally.

- You can always return to the Time of Day display from the Options setting of Set recalling loops by pressing and holding the stop button.

How to Prepare the Wrist Unit

1. Since the display is blank when the receiver leaves the factory, you have to activate the wrist unit by pressing the OK button twice, after which the Time of Day display appears.

2. You may immediately test the wrist unit by measuring your heart rate with the default settings. The following settings are suggested for change as soon as possible: Time of Day and personal user settings.

3. Wear the wrist unit as you would any other watch, but take care that it does not slide up or down your wrist.

How the Begin Monitoring Your Heart Rate

1. Begin with the display that shows the time of day.

2. Check that you are not near any forms of electromagnetic disturbances (televisions, mobile phones, power lines). Aquatrac heart monitors will not disrupt the performance of other Aquatrac heart monitors.

3. Press the OK button to start measuring your heart rate. A heart symbol will start flashing and your heart rate will appear in approximately 10 seconds (in beats per minute).

4. Press OK again. The stopwatch starts running and you can start exercising. The training data will only be stored in a set if you have turned the stopwatch on.

How to Stop Monitoring Your Heart Rate

1. Press the stop button. The stopwatch and other calculations stop. The heart rate monitoring continues, although training data is no longer recorded.

2. Press the stop button again. The heart rate monitoring now stops. The wrist unit will now display the time of day.

MODES AND THEIR FUNCTIONS

Time of Day

You can use your Aquatrac wrist unit as an ordinary watch capable of displaying the time and day of the week, as well as use of an alarm function. Also, you can

download ID numbers so that multiple users can use the wrist unit in succession, should it become necessary.

Training

In Training mode, you can measure your heart rate and training information is stored in the Set mode. You may also download training sets from your computer to the wrist unit.

Set

Set mode allows you to store up to 99 sets to be downloaded to your computer at a later time:

- Time and date of your training set.

- Average and maximum heart rate readings for each set.

- Time spent in, above, and below your target heart rate during your training.

- Lap information: best lap time, lap and split times, and current, average and maximum heart rate for each lap.

Options

- Memory settings: Set the recording rate of your heart rate monitor to 5, 15, or 60 seconds.

- Watch settings: alarm, time of day, date.

Connection

This mode allows you to download training sets and ID numbers from your computer to your wrist unit, or training data from the wrist unit to the computer.

HOW TO ENTER SETTINGS

1. In the Time of Day display, scroll up or down until OPTIONS is displayed.

2. Press OK to enter the Options mode. MEMORY SET is displayed.

3. Scroll up or down until the desired setting mode is displayed.

4. Press OK to start the settings.

- Move forward and backward by using the up or down buttons.

- Press OK to start adjusting the value.

- Scroll up or down to adjust the value.

- Press OK to lock in your selection.

- Move backward to the previous setting level by pressing the stop button.

- To return to the Time of Day, wherever you are in the Options settings: press and hold the stop button.

- The digits run faster if you press and hold the up or down button as you adjust the value. Release the button when approaching the desired value.

- On the display each function is presented by an abbreviated text. A flashing block on the display indicates how far you are in the setting mode.

SETTING THE RECORDING RATE
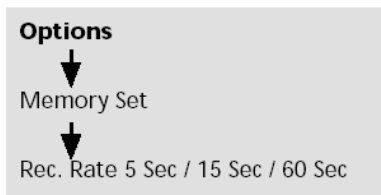
1. In the Time of Day display scroll up or down until OPTIONS is displayed.

2. Press OK to enter the Options mode. MEMORY SET is displayed.

3. Press OK to start the memory settings. Rec. Rate is displayed.

4. Scroll up or down to select the desired recording rate. As you change the recording rate you can see there the memory there is left in the lower row. Press OK.

The recording time of the wrist unit is dependent on the selected recording rate (5, 15, or 60s). When the memory is full, you can continue working out, but the training set is no longer recorded. The following table show the maximum training times for each recording rate.

Recording rate	Maximum exercising time
5 s	22 h 03 min
15 s	66 h 10 min
60 s	99 h 59 min one file and total 260h

WATCH SETTINGS

1. In the Time of Day display scroll up or down until OPTIONS is displayed.

2. Press OK to enter the Options mode. MEMORY SET is displayed.

3. Scroll up or down until WATCH SET is displayed.

4. Press OK to start the watch settings. ALARM is displayed.

Setting the Alarm

If you start from Time of Day display, repeat steps 1-4.

5. Press OK to start alarm settings. On/OFF starts to flash.

6. Scroll up or down to set the alarm on or off. Press OK. 24h: skip step 7. Off: skip steps 7-9.

7. 12h: AM/PM starts to flash. Scroll up or down to select AM or PM. Press OK.

8. The hours start to flash. Scroll up or down to adjust the hours. Press OK.

9. The minutes start to flash. Scroll up or down to adjust the minutes. Press OK.

When the alarm comes on, it will sound for one minute. You can turn it off by pressing any of the buttons.

Setting Time of Day

If you start from Time of Day display, repeat steps 1-4.

5. Scroll up or down until TIME1/TIME2 I displayed.

6. Press OK to start setting the time of day.

7. Time is flashing. Scroll up or down to select time 1 or time 2. Press OK.

8. 12h/ 24h starts to flash. Scroll up or down to select 12h or 24h mode. Press OK.

    24h: skip step 9.

9. AM/PM starts to flash. Scroll up or down to select AM or PM. Press OK.

10. The hours start to flash. Scroll up or down to adjust the hours. Press OK.

11. The minutes start to flash. Scroll up or down to adjust the minutes. Press OK.

Setting Date

If you start from Time of Day display, repeat steps 1-4.

The date is displayed differently depending on whether you have set 12h or 24h mode.

12h time: month-day-year   **24h time**: day-month-year

5. Scroll up or down until DATE is displayed.

6. Press OK to start adjusting the date.

7. Month / Day appears. Scroll up or down to select the desired value. Press OK.

8. Day / Month appears. Scroll up or down to select the desired value. Press OK.

9. Year digits start to flash. Scroll up or down to select the year. Press OK.

TRAINING USE

To begin your training, simply press the OK button to start recording your heart

rate.

Illuminating the Display

Press the signal/light button.

Storing Lap Time

Lap times will be recorded onto the wrist unit upon touching the lane unit.

Pausing the Training

Should you need to pause your training, press and hold the stop button for

approximately 3 seconds.

HOW TO RECALL TRAINING INFORMATION

The wrist unit starts to record training information once you press the OK button. Since the training sets have been downloaded prior to the training, the wrist unit will keep each set stored in a separate set. The set information can be viewed on the wrist unit or downloaded to the computer (discussed further in section Connection to Computer).
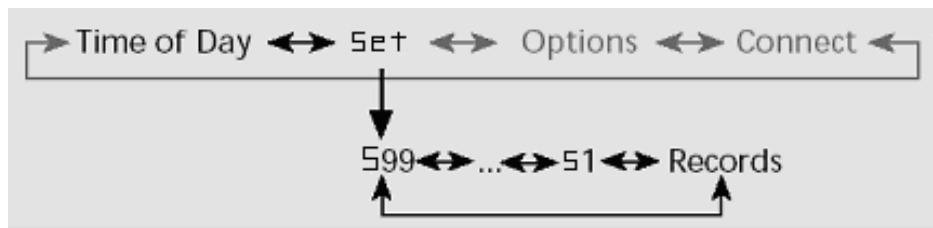
Your first set is S1, then S2 and so on, until you have recorded a maximum of 99 training sets. The bigger the set number, the more recent it is.

Training Sets

    a. In the Time of Day display scroll up or down until SET is displayed.

    b. Press OK to enter the Set mode. The main information of your set is displayed.

    c. Scroll up or down until the desired set is displayed.

    d. Press OK to start recalling a training set.

Set Laps

Repeat steps 1-4 above.

    e. Scroll up or down until LAPS is displayed.

f. Press OK to start recalling lap information.

g. Scroll up or down to see the following information:

Best Lap
Shortest lap time.
The number of the best lap.
The best lap information is displayed if you have stored at least 3 laps. The best lap can not be the last lap.

Laps
Split time.
Lap time.
Lap number.
The heart rate at the end of the lap,
average and
maximum heart rates of the lap.

Press the stop button to exit the LAPS display.

Recorded Heart Rate Samples

Repeat steps 1-4 above.

1. Scroll up or down until SAMPLES is displayed.

2. Press OK to start recalling the recorded samples of your training set. The heart rate and time when the sample was recorded are displayed.

3. Scroll up or down the samples. Press and hold the stop button to return to the Time of Day display.

Deleting a Set

a. In the Time of Day display scroll up or down until SET is displayed.

b. Press OK to enter the Set mode.

c. Scroll up or down until desired training set is displayed. Press and hold the signal/light button. DELETE SET and set number are displayed.

d. Press OK. The wrist unit confirms if you want to delete the set (Are you sure).

e. Press OK to delete the selected set.

f. Press stop to exit the set. Wait appears. The wrist unit reorganizes your set, which takes a few seconds.

g. Repress stop to return to the Time of Day display.

Deleting All Sets

1. In the Time of Day display scroll up or down until SET is displayed.

2. Press and hold the signal/light button. DELETE SETS is displayed.

3. Press OK. The wrist unit confirms if you want to delete all sets (Are you sure).

4. Press OK to delete all training sets.

5. Press stop to return to the Time of Day display.

CONNECTION TO COMPUTER

There is two-way communication between your Aquatrac wrist unit and the computer. The ability to download training sets to the wrist unit and download training data to the computer is vital to success as a swimmer.

Downloading Training Data To and From a Computer

1. Start the Aquatrac software.

2. Scroll up or down until CONNECT is displayed in the wrist unit display. Point the infrared window of the wrist unit towards the infrared window of the computer (or optional interface). The maximum infrared transfer distance is 20cm/ 8" and the infrared transfer angle is plus/minus 15 degrees.

3. On the toolbar of the software, click on the Tools > Connection. A new window "Infrared Connection" appears.

4. The wrist unit automatically starts to communicate with the software. Follow the instructions on the computer screen to proceed with downloading training sets to the computer or wrist unit settings to the wrist unit.

CARE AND MAINTENANCE

Your Aquatrac wrist unit is a high-tech instrument of superior design and workmanship and should be treated with care. The suggestions below will help you fulfill the guarantee obligations and benefit from this product for years to come.

Taking care of your Aquatrac Wrist Unit

- Wash the wrist unit regularly after use with a mild soap and water solution. Dry it carefully after washing with a soft, clean towel.

- Never store the wrist unit wet. Sweat and moisture can keep the sensors activated, which shortens battery life.

- Store your Aquatrac wrist unit in a cool, dry place. Do not store it in any kind of non-breathing material, such as a plastic bag or a sports bag if it is wet.

- Do not try to open or alter your Aquatrac wrist unit in any way. Performance of the sensors and other components may be affected.

- Do not dry the wrist unit in any other way than with a towel. Mishandling may damage the sensors.

- Keep your Aquatrac wrist unit out of extreme cold and heat. The operating temperature is 14°F to 122°F/ -10°C to 50°C.

- Do not expose your Aquatrac wrist unit to direct sunlight for extended periods, such as by leaving it in a car.

Batteries

The estimated average battery life of the wrist unit is 2 years of normal use (approx. 2h per day, 7 days per week). Please note that excessive use of the backlight and the alarms will drain the battery more rapidly. Do not open the wrist unit yourself. To ensure the water resistance properties and the use of qualified components, the wrist unit battery should be replaced by authorized Aquatrac Service Team members only. At the same time, a full periodic check of your wrist unit will be conducted.

Water resistance cannot be guaranteed after unauthorized service

PRECAUTIONS

Your Aquatrac wrist unit is water resistant up to 200m, however due to the nature of training in water, you may experience some interference. It may be caused by:

- Pool water with high chlorine content is very conductive. The sensors on the wrist unit may react to this conductivity and not function properly.

- Jumping into the water or strenuous muscle movement during competitive swimming may cause water resistance that shifts the wrist unit away from the wrist where it is not possible to detect heart rate. Ensure that the wrist unit is properly secured.

- The sensor detection varies depending on the individual's tissue composition and the percentage of people who have problems in heart rate measuring is considerably higher in a water environment.

Minimizing Possible Risks in Training with a Heart Rate Monitor

Before starting a regular training regimen an individual is recommended to answer the following questions for health status checking. If the answer is yes to any of the questions, we recommend consulting a doctor before training.

- Have you not exercised in the past 5 years?

- Do you have high blood pressure?

- Do you have high blood cholesterol?

- Do you have symptoms of any disease?

- Are you taking any blood pressure or heart medication?

- Do you have a history of breathing problems?

- Are you recovering from a serious illness or medical treatment?

- Do you use a pacemaker or another implanted electronic device?

- Do you smoke?

- Are you pregnant?

  Note that in addition to exercise intensity, medications for heart, blood pressure, psyche, asthma, breathing, etc. as well as some energy drinks, alcohol and nicotine, can affect heart rate.

It is important to be sensitive to your body's reactions during training. If you feel unexpected pain or tiredness regarding your training intensity level, it is recommended to stop the training or continue at a lower intensity.

Notice to persons with pacemakers, defibrillator, or other implanted electronic devices: Persons who have a pacemaker use the Aquatrac wrist unit at their own risk. Before starting use, we recommend a training test under doctor supervision. The test is to ensure the safety and reliability of the simultaneous use of the pacemaker and the heart rate monitor.

If you are allergic to any substance that comes in contact with the skin or you suspect an allergic reaction due to using the product, check the listed materials in the "Technical Specification" section.

FREQUENTLY ASKED QUESTIONS

What should I do if…

…I don't know where I am in the Options or Set cycle?

Press and hold the stop button until Time of Day is displayed.

…I cannot find the previous training set?

You may have paused the recording of your training set.

…there is no heart rate reading (- -)?

1. Check that the sensors on the wrist unit are moistened and you are wearing it properly.

2. Check that you have kept the wrist unit clean.

3. Have you had a cardiac event which make have altered your EKG waveform? In this case consult a physician.

…heart symbol flashes irregularly?

1. Check that the wrist unit is being worn properly to ensure sensor detection.

2. Make sure the sensors are moistened and clean.

3. Cardiac arrhythmia may cause irregular readings. In this case consult your physician.

…the display is blank or fading?

If the display is blank, activate the wrist unit by pressing the OK button twice, after which the Time of Day appears. The first sign of a low battery is the low battery symbol. Also the digits will fade when the backlight is used. Have your batteries checked.

…there are no reactions to any buttons?

Reset the Aquatrac wrist unit. Resetting clears watch settings and returns them to the factory defaults. User ID number is saved.

…the battery of the wrist unit must be replaced?

We recommend having all service performed by licensed Aquatrac Service Team members. This is necessary to ensure the guarantee remains valid and is not affected by incorrect repair procedures. Aquatrac will test your wrist unit and perform a periodic check upon replacement of the battery.

…the data transfer from wrist unit to computer was unsuccessful?

1. Check the correct position of the wrist unit with the infrared window of the computer (or optional interface).
2. Check that the surroundings are not too bright. This problem often occurs near windows.
3. Check that there is no obstruction between the infrared windows.

How to use the AquaTrac Coaching Software

I. AquaTrac Software – Opening Page

The opening window of the software will look like the picture below.
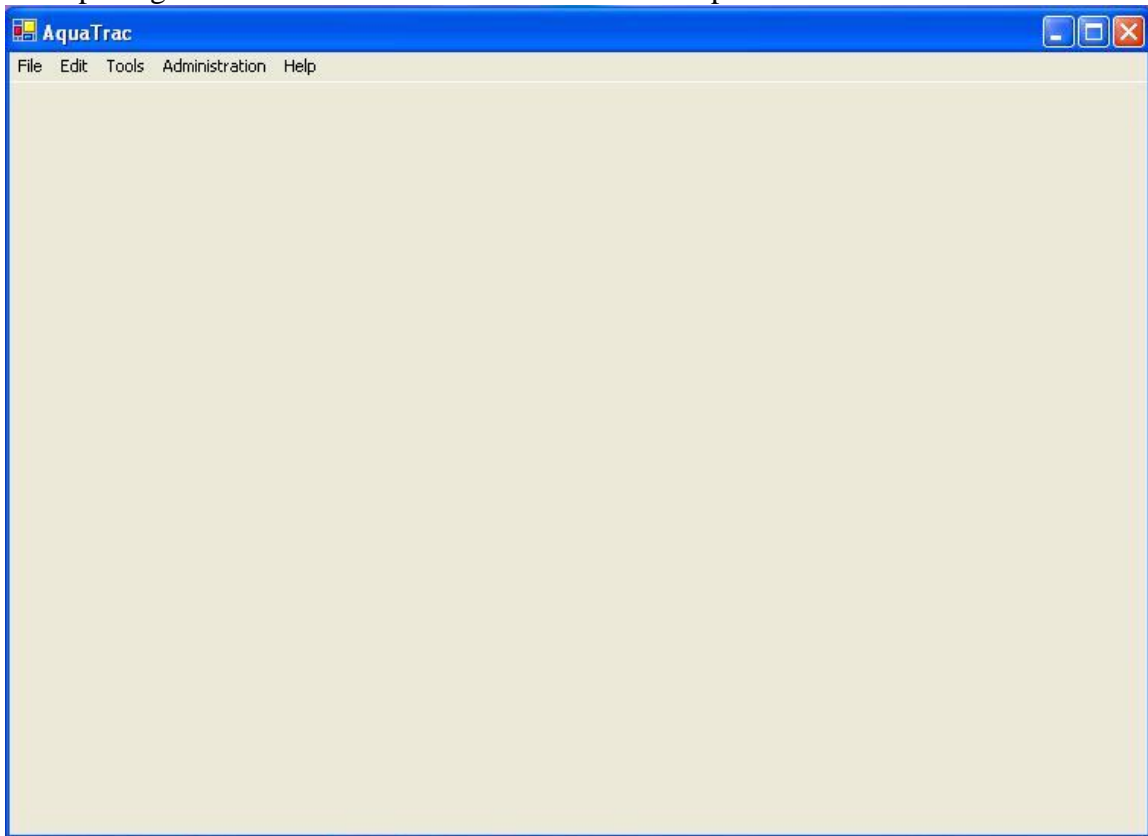
This window will serve as your workspace for any coaching administration you wish to do.

II.   AquaTrac Software – Creating a New Team

You can begin organizing team information by initializing a new team. To do so, click File on your main menu, then select the New Team option.
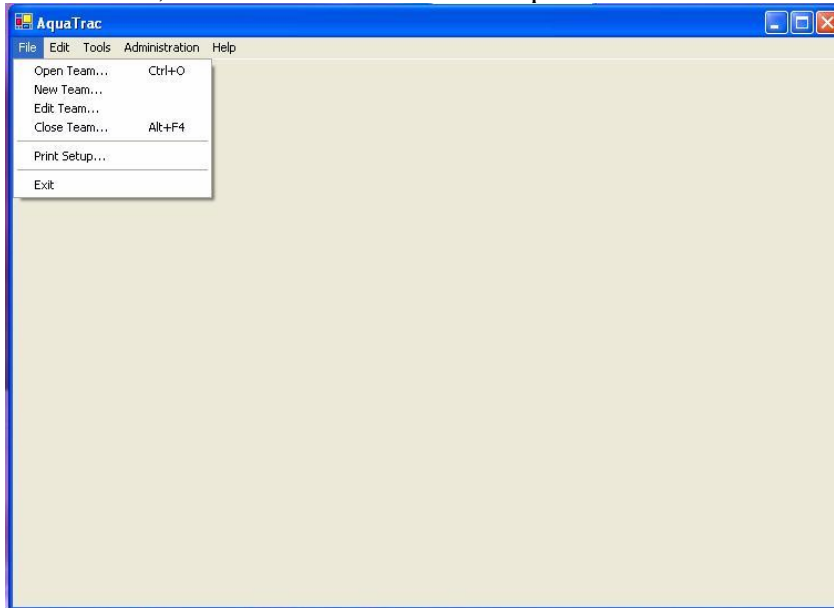
Type in the information according to the fields provided. When you have entered the data correctly, click Okay.
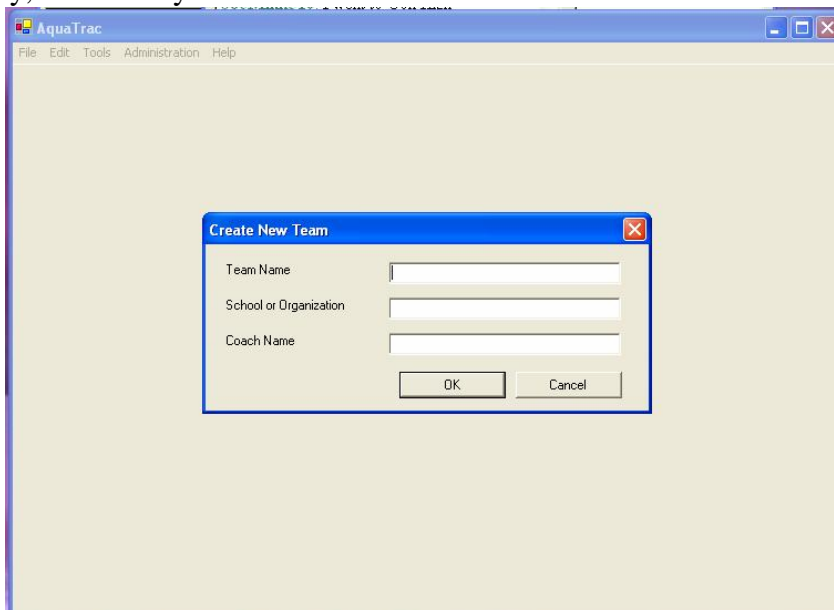
Once you have become familiar with the AquaTrac software, you may wish to further organize your team into smaller categories. Choosing this option will allow you to save Groups, or Teams, however you like.

AquaTrac Software – Opening an Existing Team

Once you have organized your team or teams. You may begin working with a team by
clicking the File option on your main menu and selecting the Open Team Option.
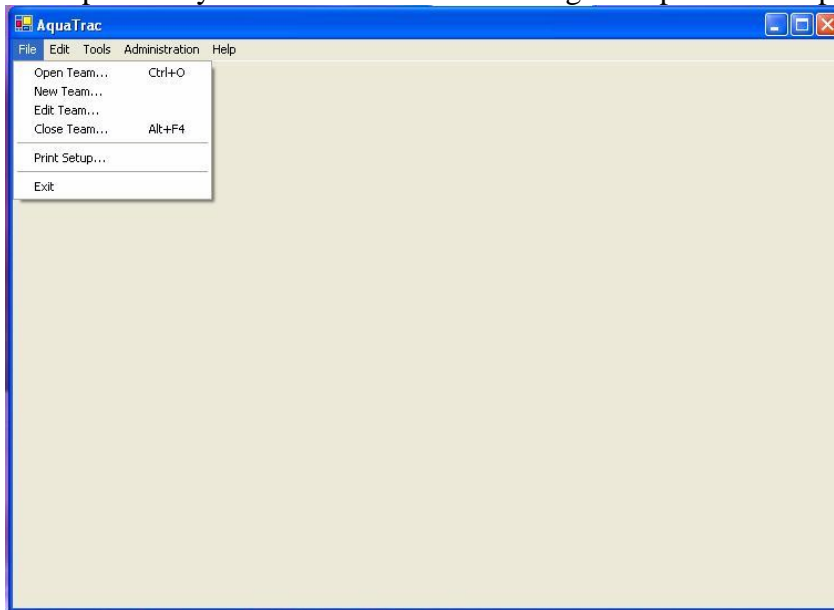
Select the team that you wish to work with and click Okay.
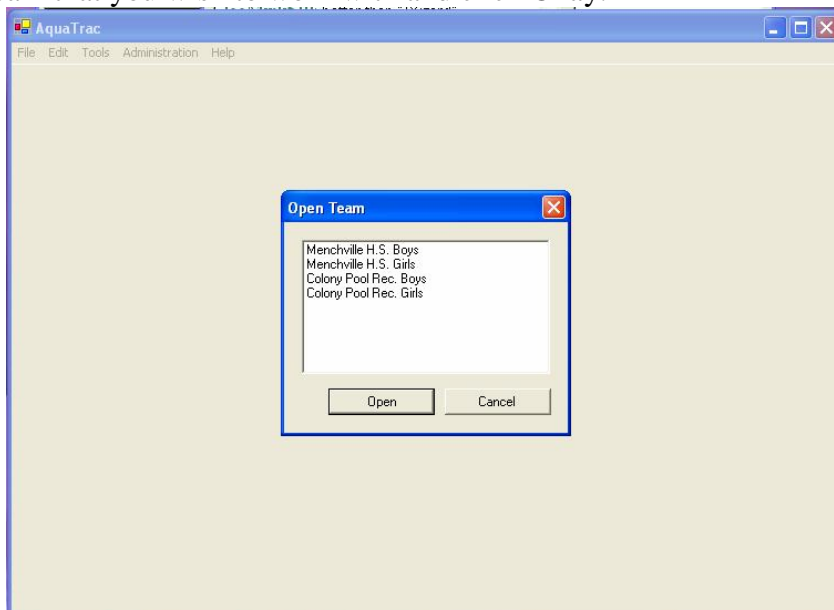
AquaTrac Software – Editing Team Information

If you have an existing team open and would like to edit team identification information, choose the File option in your main menu, then select the Edit Team option.
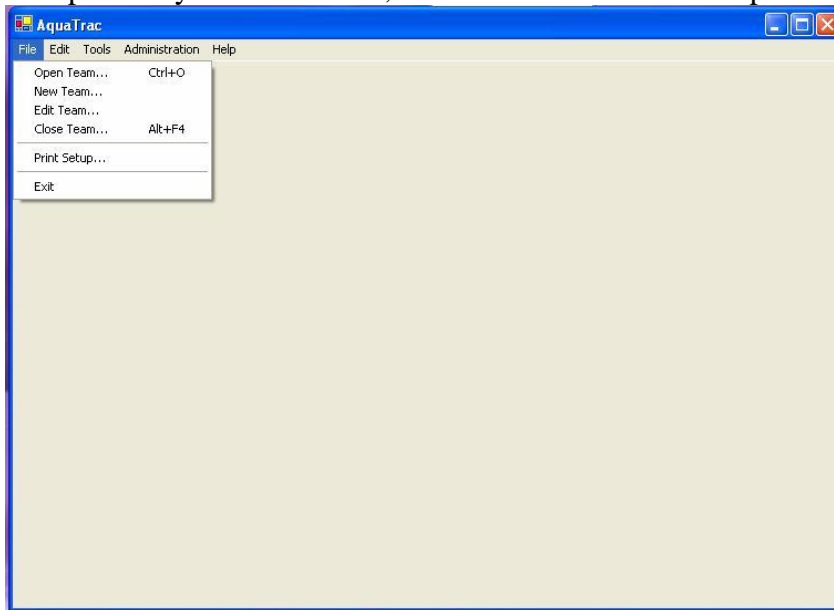
Click the radio button for the field that you would like to change, and then type the corrected information in the chosen field. Once you have entered the new information, click OK.
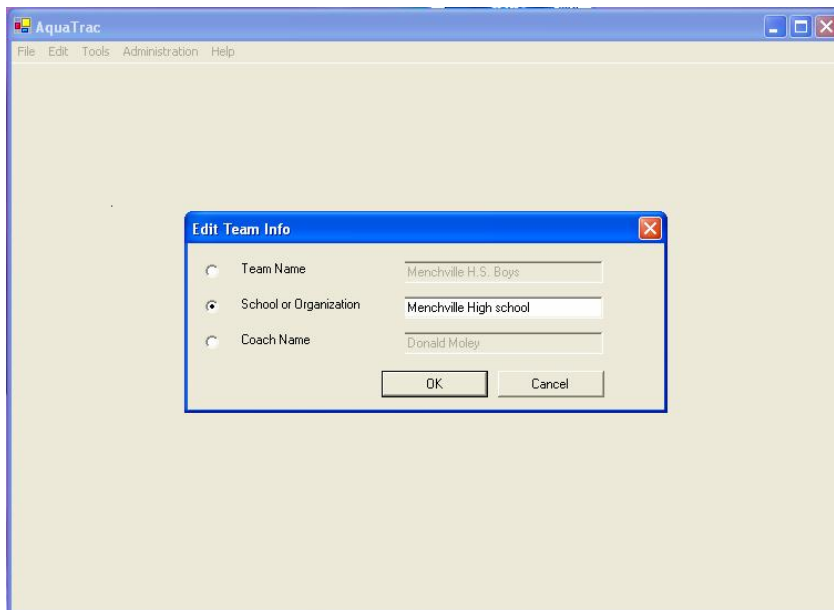
AquaTrac Software – Ending a Session with an Open Team and Exiting

When you are finished working with team information, select the File option from the main menu, then choose the Close Team option.
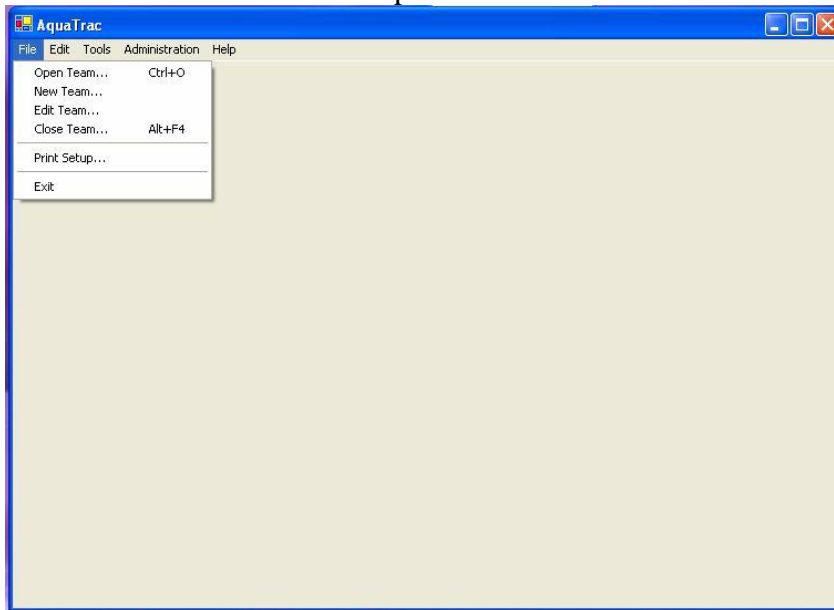
If you wish to set your default printers, then select the File option on the main menu and choose the Print Setup option. A Print Setup Wizard will guide you through the Printer setup configuration.

If you wish to quit working with your AquaTrac software, then select the File option from the main menu and choose the Exit option.

AquaTrac Softare – Viewing Swimmer Statistics in a Table Format

You may wish to view swimmer statistics for a team in a table format. This can prove useful when deciding how your swimmers times compare with one another while training. To do so, select the Tools option from the main menu, and then select the Table Builder option.
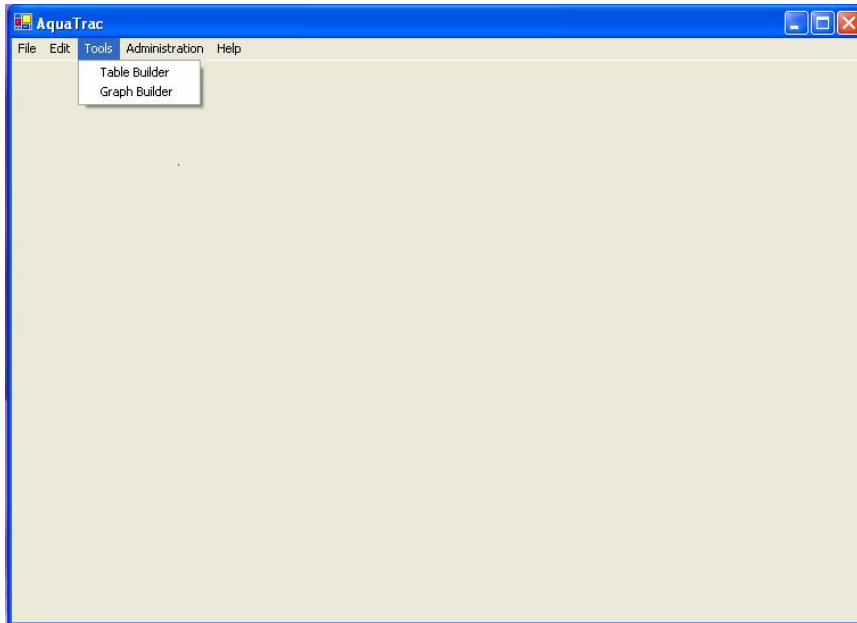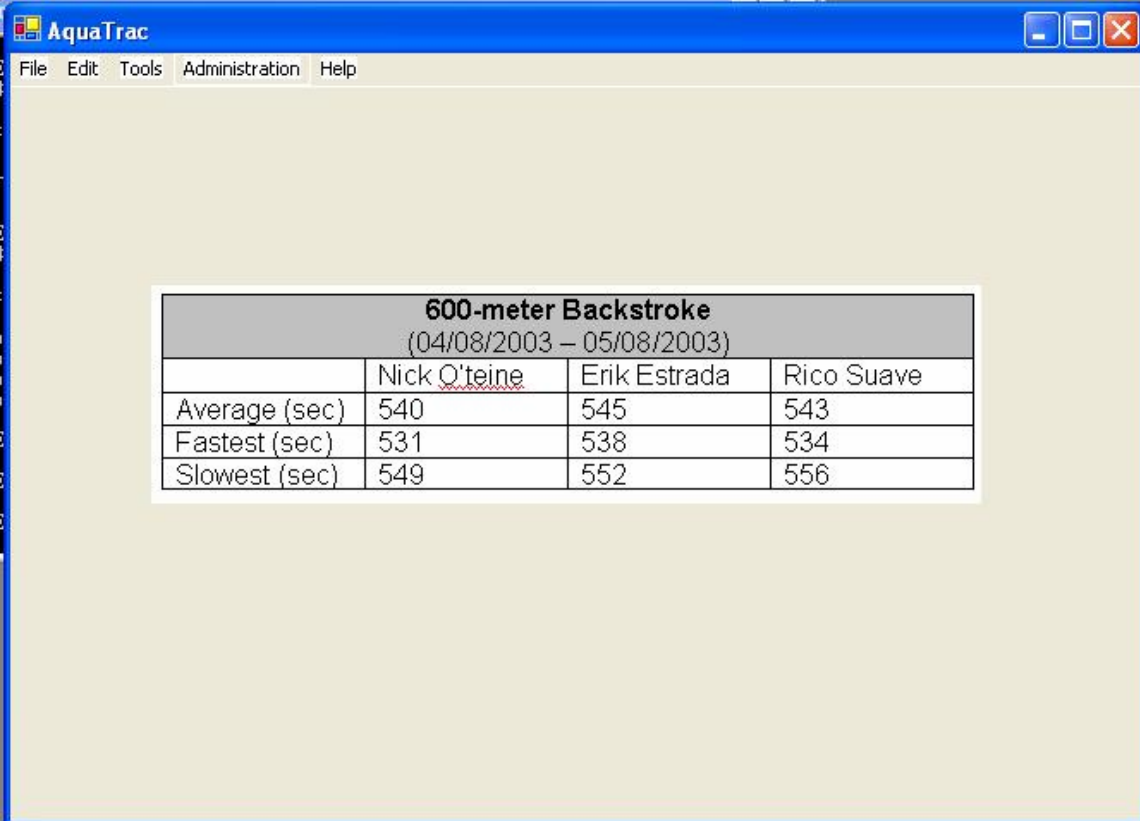
A table-building window will appear, allowing you to enter the necessary information for setting up a table. Fill in the proper fields to view swimmer statistics in a table format.
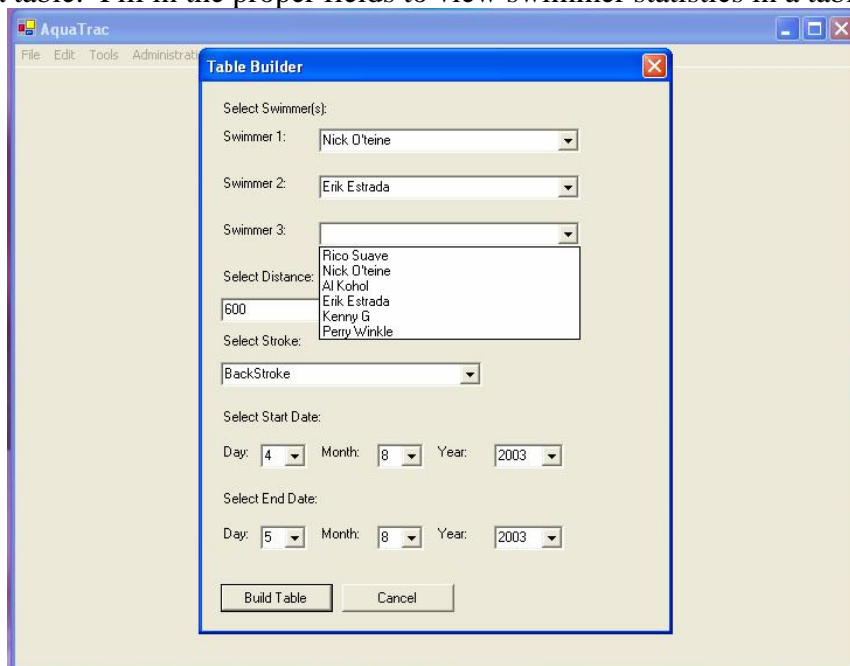
Then click Build Table.

The Table displayed will look similar to the one shown in this image.

AquaTrac Software – Viewing Swimmer Statistics in a Graphical Display

Another way to view swimmer statistics is with a graphical display. Select the Tools
option from the main menu, and then choose the Graph Builder option.
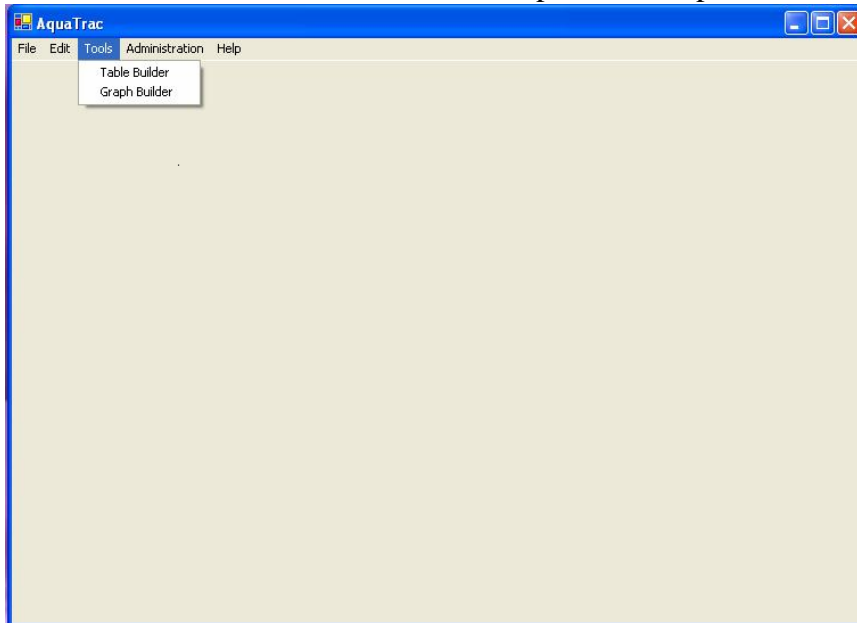
A graph-building wizard will help to guide you through the graph building process.
Follow the directions offered by the wizard to produce helpful graphical displays.

Comparing Multiple Swimmer Sets for a Given Date

Once the Graph Builder appears on your screen, you can view graphs with up to three different swimmers. Fill in the first three fields with anywhere from one to three swimmers. Select a distance for the set you would like to view. Next, select the stroke for the set you would like to view. Then fill in the time span for the set you wish to view. Once you have filled in the appropriate fields, click Build Graph.
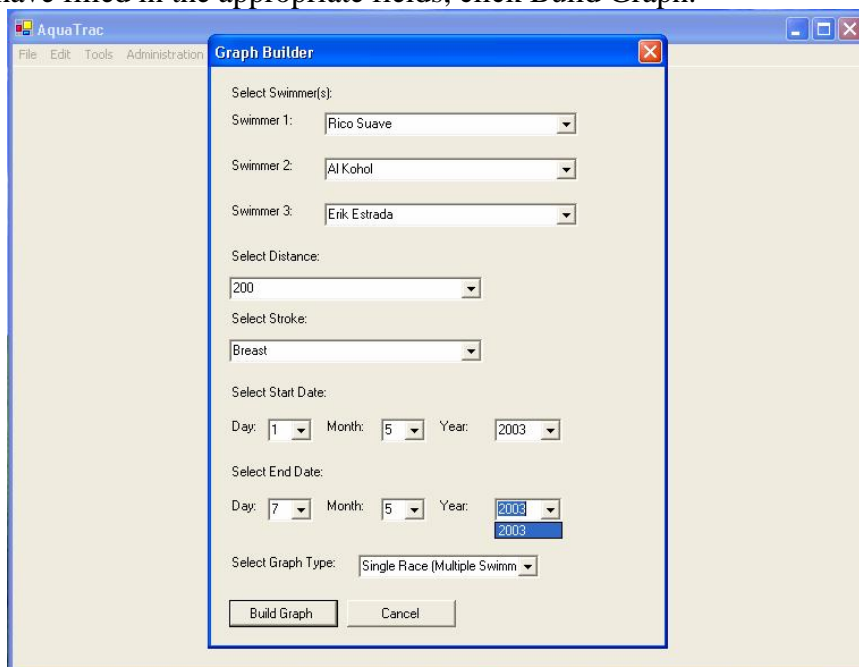
In the next Window, you will have the option to view which sets you wish to graph for each swimmer. The sets are listed according to set number and date. From the drop-down menu that appears next to each swimmer's name, select the set that you wish to view for that swimmer. Than click Okay.
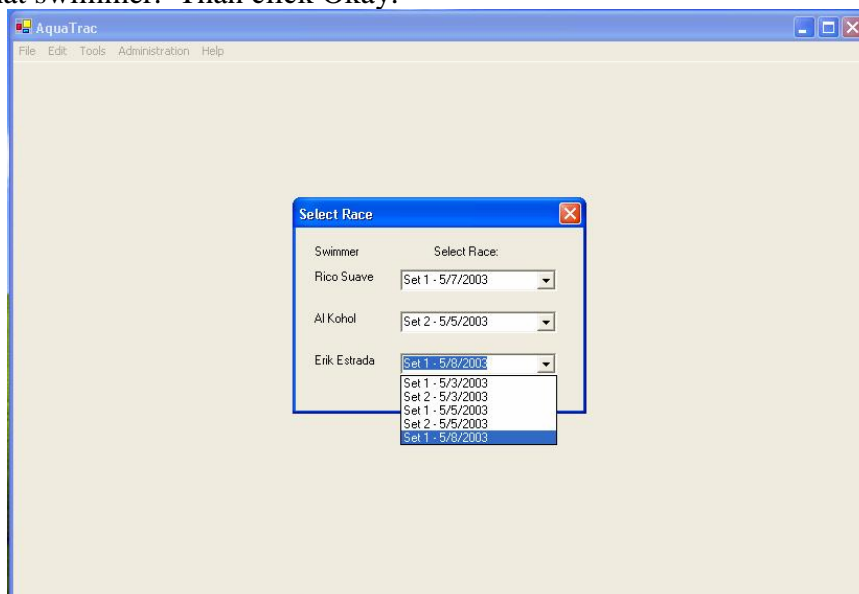
The next window will show a graph similar to the one shown below. From this data you will be able to compare swimmers and choose who you would like to place in which events.
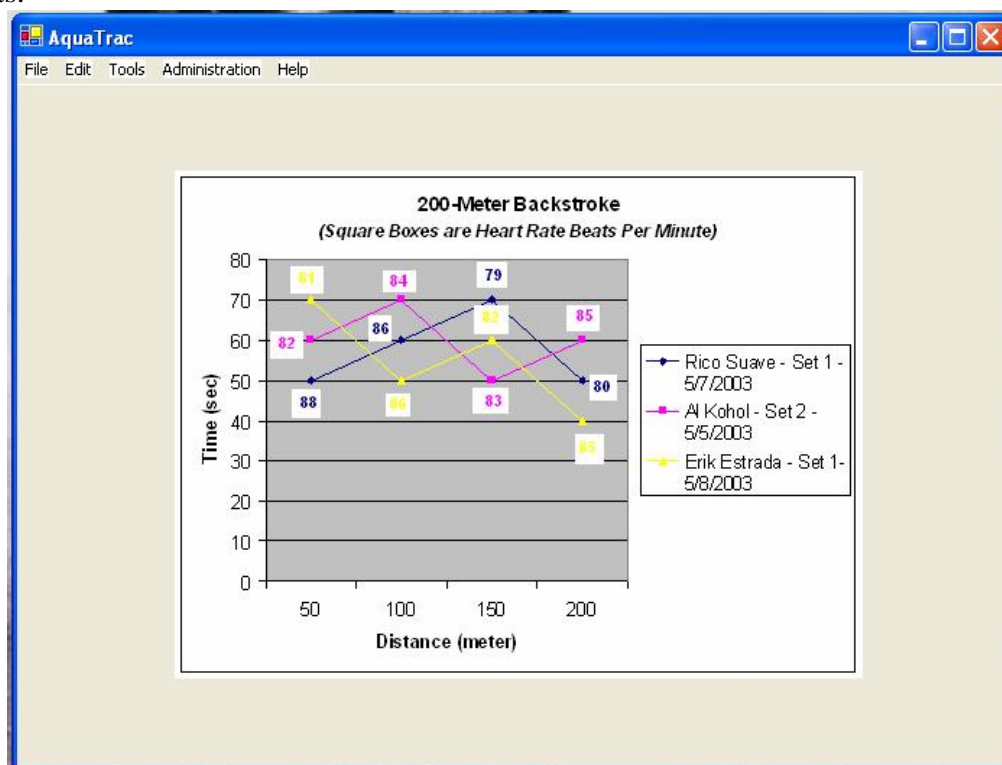
Comparing Multiple Swimmer Set Averages

As a coach, you may wish to view swimmer graphical information based on averages over a given time span. To do so, fill in the appropriate data and select Averages for the Graph Type field. Then click Build Graph.

The graph that is displayed will look similar to the image below.
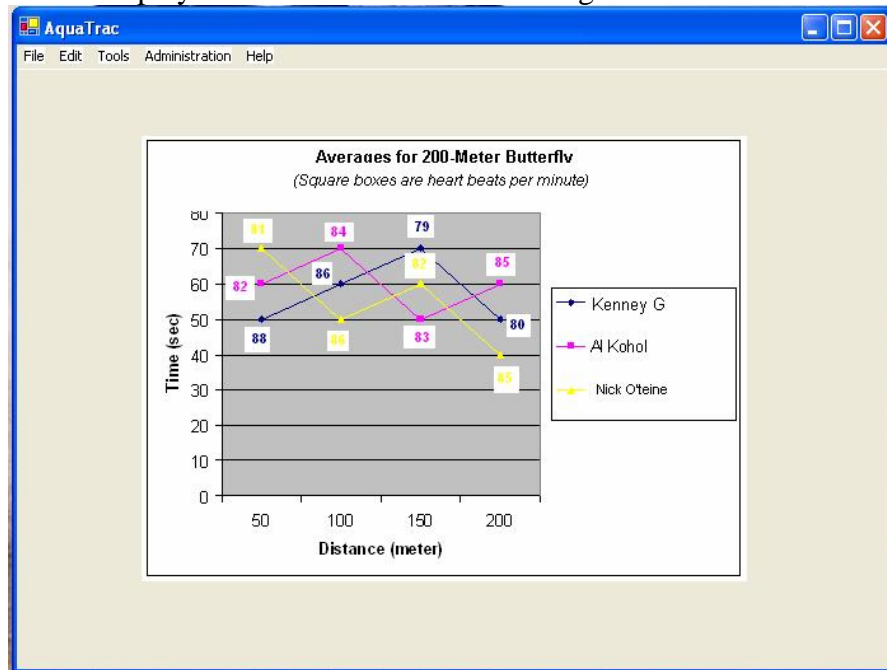
Individual Swimmer Stats

   If you would like to view graphical information for a swimmer for several different sets, select the same swimmer for any three of the Swimmer fields. Then select the set you would like to view and then choose a time span. Select single race in the Graph Type field and click Build Graph.

   In the next window, select the sets you would like to view based on the set number and date. Then press Enter.

The Graph will look similar to the image shown below.
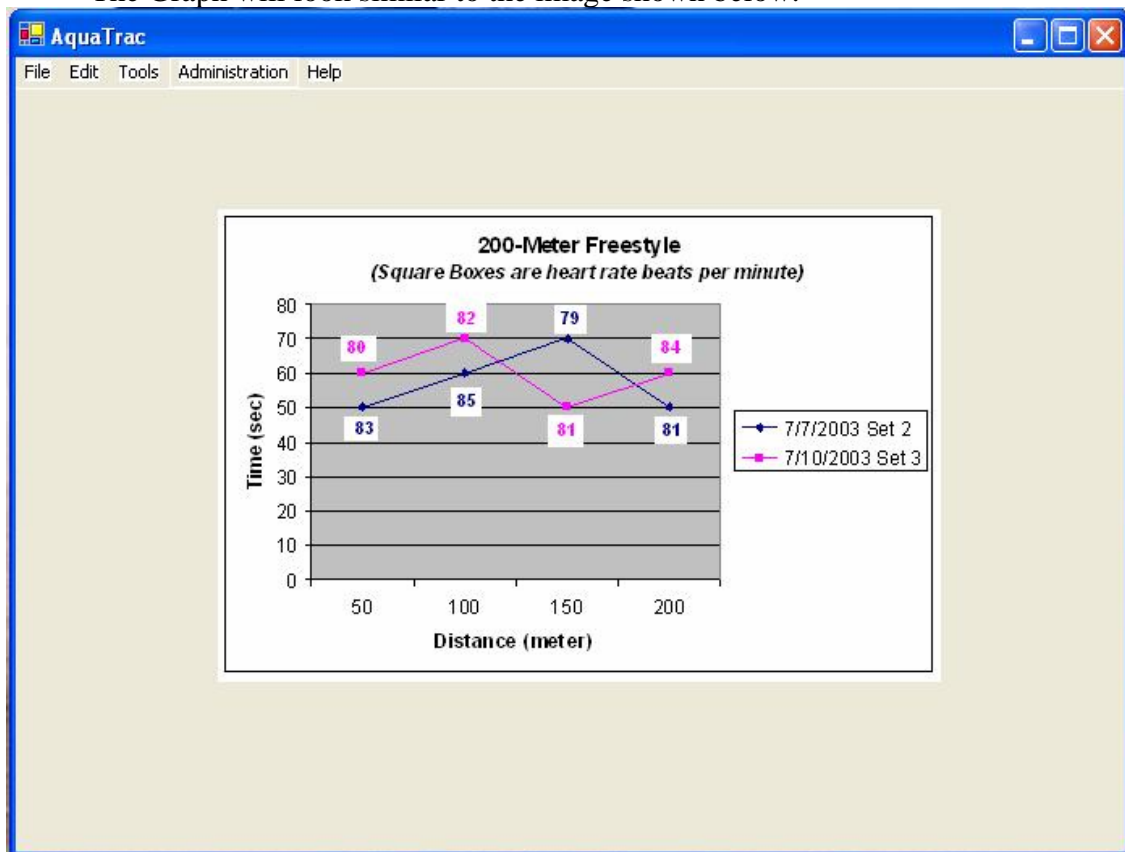
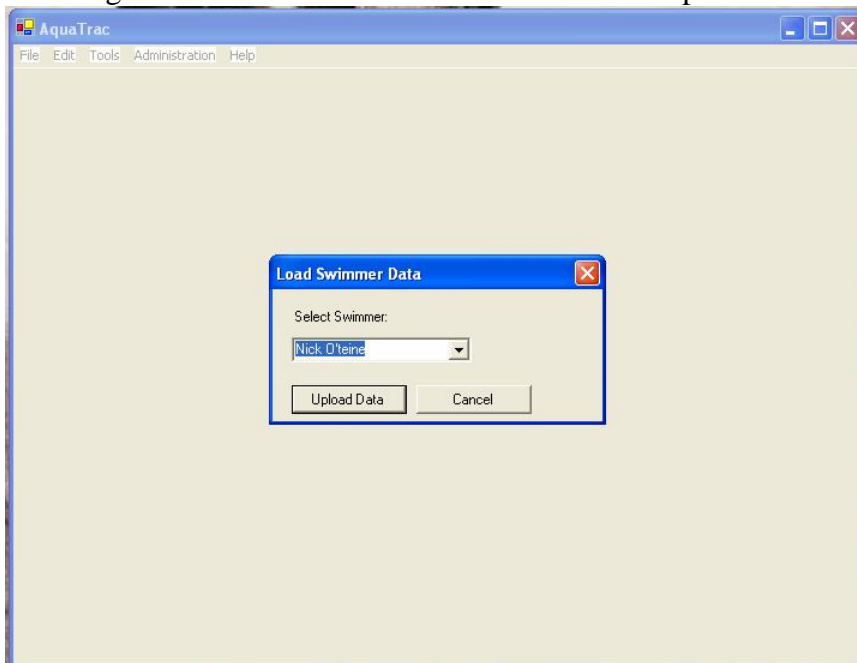**AquaTrac Software – Loading Swimmer Data From Wrist Units**

When you are ready to load data from a wrist device to your coaching station database, select Administration from the main menu, and then choose Load Swimmer Data.
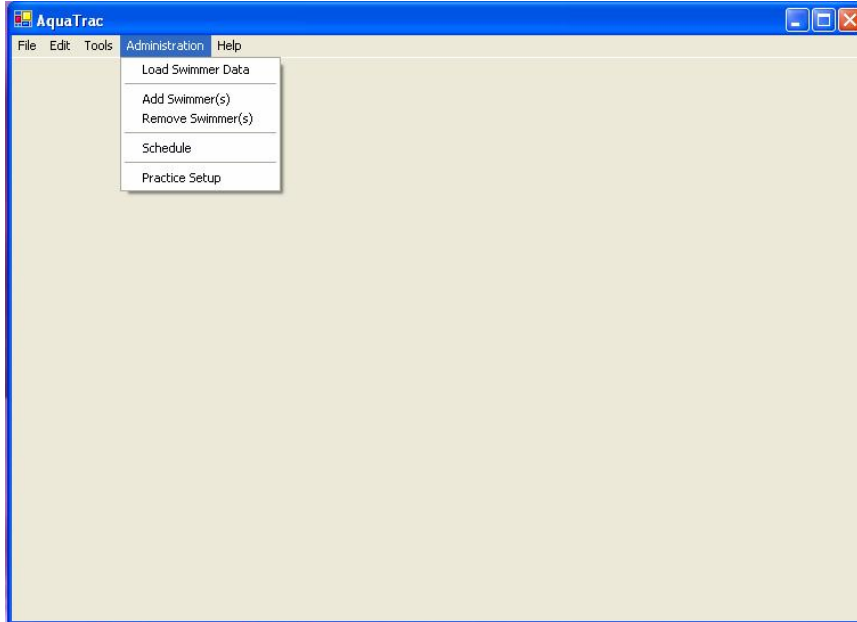
Position the wrist device within 2 feet of your coaching station and select the swimmer who is registered with that wrist device. Then click Upload Data.

A window similar to the image shown below will indicate that the wrist device is properly loading data into your coaching station database.
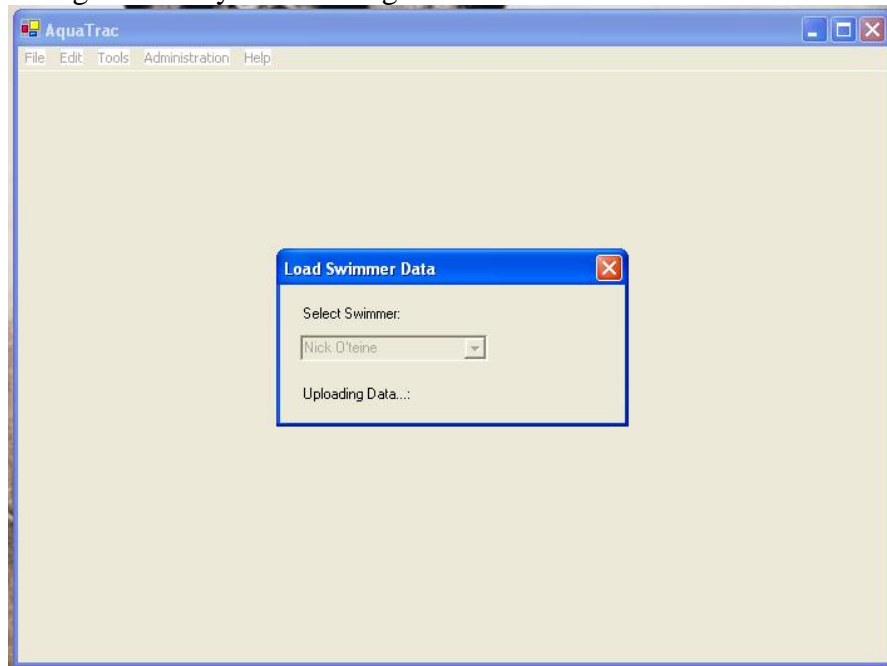
AquaTrac Software – Adding Swimmers to a Team

      If you would like to add a new swimmer to a team, select Administration from the main menu, then choose the Add New Swimmer option. Fill out the fields with the appropriate information for that swimmer and click Add Swimmer.
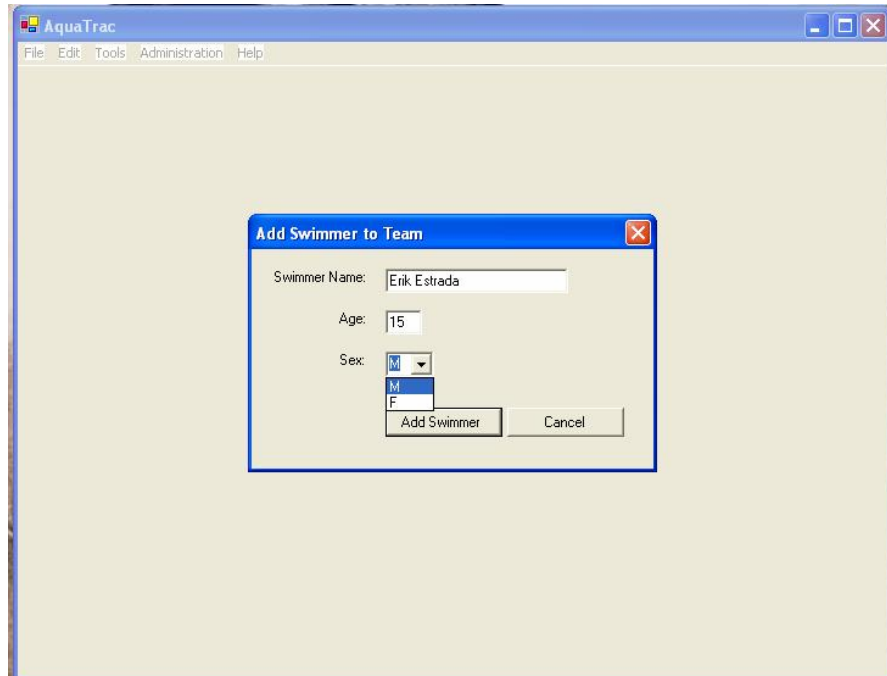
AquaTrac Software – Removing Swimmers from a Team

If you need to remove a swimmer form a team, select Administration from the main menu, then choose the Remove Swimmer option. Select the swimmer from the drop-down menu and click Remove Swimmer.
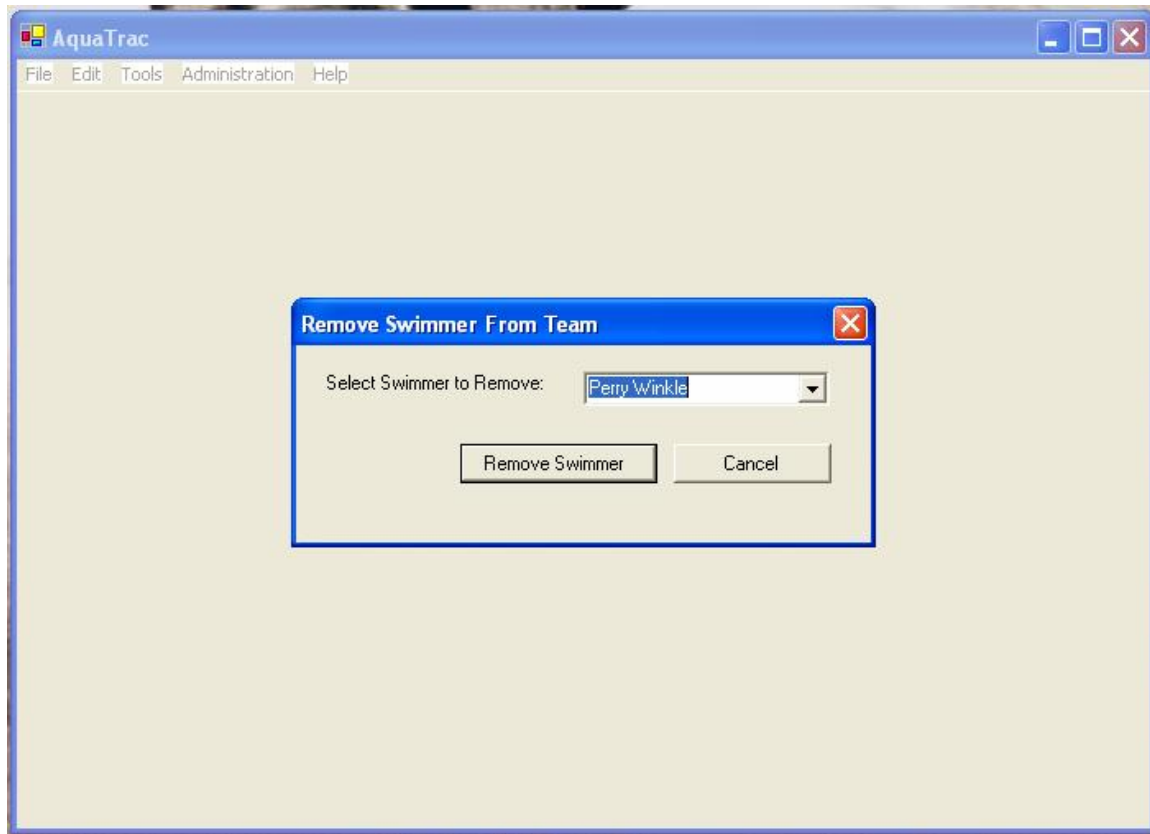
Product Certifications and Inspections

Underwriters Laboratories Safety Certification

Underwriters Laboratories Inc. (UL) is an independent, not-for-profit safety testing and certification organization. All AquaTrac System Specifications have undergone the highest scrutiny under Underwriters Laboratories testing and passed with flying colors. The UL license ensures that correct installation of the AquaTrac System meets all current standards of safety.

Storage of Your AquaTrac System

The AquaTrac System is designed to be a portable addition to your training facility. The lane units (touch pads) are not intended to remain in your swimming pool at all times. With this in mind, we recommend that when your AquaTrac System is not in use, you store your AquaTrac System according to the following guidelines…

1. Keep all lane unit touch pads stored horizontally on the Lane Unit Storage Rack. The rack is designed to allow proper drainage of any excess water. Touch pads that are stored flat on the floor can collect standing water. Standing water can cause damage over long periods of time.

2. Do not store power cables where they can be stepped on or crushed.

3. Do not store power cables in a fashion that may cause them to bend and kink. If power cables are bent to sharply, then they may become frayed. Frayed cables are hazardous.

Inspection of Your AquaTrac System

We recommend that you inspect the lane units once a month for damage. When
inspecting the Lane Unit Touch Pads, look for exposed wires or metal sheeting. If a lane
unit is damaged in any way, do not place it in the water, as this could be harmful to you
and your swimmers.

Warranty Information

AquaTrac Systems, Inc. is dedicated to providing you with the best system possible for your coaching needs. However, we realize problems may arise beyond our control. Should your AquaTrac system malfunction in any way, we have designed a warranty policy for all of our valued customers. The policy is defined as follows…

1. Hardware

    All hardware purchased in an AquaTrac System Package is fully guaranteed for three months upon delivery of the product. Should any of the units fail to function properly, please contact the support desk at AquaTrac Systems, Inc. Once in contact with a support technician, you will be asked to identify the unit(s) that is malfunctioning. You will also be asked to describe the malfunction. Once approved, the support technician will provide you with directions for shipping the product to our offices at no expense to you or your organization. You will have the option of ordering a new unit to replace the malfunctioning piece, free of charge. You may also opt to receive a pro-rated refund, according to your original AquaTrac System Package.

2. Software

AquaTrac Systems Inc. will provide you with support for your AquaTrac coaching software for as long as you own our product. Help with our software may be found at the AquaTrac Support desk toll free at (800) 555-5555 during normal business hours. Feel free to call us if you are having trouble understanding our product, or if your AquaTrac coaching software is not operating according to all of the specifications defined in this manual. Our support team will be happy to help you with any issues you may have regarding AquaTrac coaching software. Support for AquaTrac software does not apply to software packages provided as software bundles from companies other than AquaTrac Systems, Inc. For issues with bundled software packages other than AquaTrac Software, please contact the appropriate vendor.

For questions concerning the warranty policy provided with your AquaTrac System Package, please contact our support desk toll free during normal business hours at (800) 555-5555.

Parts Included with the AquaTrac System Package

Each AquaTrac System Package is different, tailored to meet your needs as a competitive swimming organization. With delivery of the product you will receive an itemized receipt listing all of the components that have been ordered at your request. Upon delivery of your AquaTrac System Package, please check the receipt to make sure that the items listed match the Package that you ordered, and that the items delivered correspond to the items listed in your receipt. The following is a list of items that might appear on your receipt…

Main Computer – Coach's Station
Dell Dimension 2400

Monitor
Dell UltraSharp 1504FP15-inch Flat Panel LCD Monitor

Keyboard
Dell Keyboard

Mouse
Dell Scroll Mouse

IrDA adaptor

Lane Units
Omega Touch Pads with Storage Rack

Wrist Unit
Polar 610i Heart Rate Monitor

<u>Software Package</u>

Windows XP Server – CD

Microsoft Office XP Standard – CD

AquaTrac Coaching Software - CD

Repair and Product Support Contact Information

Please feel free to contact us with any problems or concerns you may have with your new

AquaTrac System. Our support team will gladly answer any questions you have or

address any problems you my run into. Thank you for choosing AquaTrac. We trust that

you will be satisfied.

AquaTrac Systems, Inc.
Support Desk: (800) 555-5555
Sales Representative: (800) 555-5556
Fax: (555) 555-5557

Shipping Address:

AquaTrac (Receivables)
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Norfolk, Virginia 23433